

CESARE CONCI (*) & LIVIO TAMANINI (**)

TWENTY-SIX SPECIES OF PSYLLOIDEA NEW FOR ITALY

(*Homoptera*)

Abstract. — About 97 species of *Psylloidea* were reported in the bibliography for the Italian fauna till 1982. Twenty-three species were added in 1983-84. The AA add 26 species in the present work: **Aphalara avicularis*, *A. borealis*, **Craspedolepta malachitica*, *C. omissa*, *C. subpunctata*, *Strophingia cincrac*, **Diaphorina chobauti*, *D. putoni*, *Psyllopsis discrepans*, *P. distinguenda*, *Arytaina adenocarpi*, *Spanioncera fonscolombii*, **Psylla betulae*, *Cacopsylla abdominalis*, *C. albipes*, *C. brunneipennis*, *C. costalis*, *C. elegantula*, *C. pulchra*, **C. zetterstedti*, **Trioza abdominalis*, *T. agrophila*, *T. marginepunctata*, *T. rotundata*, *T. senecionis*, *Bactericera bohemica*. The 6 species marked with * are new also for South Europe. *Diaphorina chobauti* is new for Europe. For each species we report localities, dates and plants on which the species was collected, short notices on general distribution and, when interesting, various considerations. The species cited for Italy are now about 146.

Riassunto. — Ventisei specie di Psylloidea nuove per l'Italia.

Circa 97 specie di *Psylloidea* erano note fino al 1982 per l'Italia, secondo la letteratura. Nel 1983-84 sono state aggiunte 23 specie, che vengono elencate. Nel presente lavoro sono riportate le seguenti 26 specie, nuove per l'Italia: **Aphalara avicularis*, *A. borealis*, **Craspedolepta malachitica*, *C. omissa*, *C. subpunctata*, *Strophingia cincrac*, **Diaphorina chobauti*, *D. putoni*, *Psyllopsis discrepans*, *P. distinguenda*, *Arytaina adenocarpi*, *Spanioncera fonscolombii*, **Psylla betulae*, *Cacopsylla abdominalis*, *C. albipes*, *C. brunneipennis*, *C. costalis*, *C. elegantula*, *C. pulchra*, **C. zetterstedti*, **Trioza abdominalis*, *T. agrophila*, *T. marginepunctata*, *T. rotundata*, *T. senecionis*, *Bactericea bohemica*. Le 6 specie segnate con * sono nuove anche per l'Europa meridionale. *Diaphorina chobauti* è nuova per l'Europa. Per ogni specie sono riportate località, date e piante di raccolta, indicazioni sulla distribuzione generale e talora notizie varie. Attualmente quindi sono note per l'Italia circa 146 specie di *Psylloidea*.

In a recent work (CONCI & TAMANINI 1983a: 322) we attributed to the Italian fauna about 97 species of *Psylloidea*, on the basis of the consulted bibliography. Subsequently the following 23 species were

(*) Museo Civico di Storia Naturale, Corso Venezia 55, 20121 Milano, Italy.

(**) Museo Civico di Rovereto, Via Calcinari 18, 38068 Rovereto (Trento), Italy.

added: *Crastina loginovae* (CONCI & TAMANINI 1983b); *Craspedolepta carinthica* (CONCI & TAMANINI 1983c, BURCKHARDT 1983a); *Craspedolepta conspersa* CONCI & TAMANINI 1983d); *Aphalara calthae*, *A. r. rumicicola*, *Psylla sorbi*, *Trioza curvatinervis*, *T. harrisoni*, *T. pallida*, *T. schranki*, *T. tatreensis* (HODKINSON 1983); *Aphalara sauteri*, *Craspedolepta bulgarica*, *Rhinocola fusca*, *Arytainilla spartiophila* and *Cacopsylla affinis* (BURCKHARDT 1983a and 1983b); *Floria poggii* (CONCI & TAMANINI 1984a); *Trioza portulacoides* (CONCI & TAMANINI 1984b); *Rhodochlanis hodkinsoni* and *R. salicorniae* (CONCI & TAMANINI 1984c); *Trioza rapsardai* (CONCI & TAMANINI 1984d); *T. binotata* (CONCI & TAMANINI, in press); *Aphorma lichenoides* (CONCI, TAMANINI & BURCKHARDT, in press). Of the 13 species cited by HODKINSON 1983 and by BURCKHARDT 1983a and 1983b (except *Aphalara calthae* and *A. sauteri*) the remaining 11 were already collected and determined by us and they were ready for the publication. Therefore, the number of the species cited for Italy arrived to 120.

With the present work we add other 26 species, so that the species cited for Italy are now about 146, the greatest number of *Psylloidea* known for an European country at the present, excluding U.S.S.R. Some other species new for Italy are in our collections, but the study of these still necessitates a control.

All the 26 species cited in the present work are new for the central part of South Europe. Six species (*Aphalara avicularis*, *Craspedolepta malachitica*, *Diaphorina chobauti*, *Psylla betulae*, *C. zetterstedti*, *Trioza abdominalis*) are new for South Europe. *Strophingia cinereae* enlarges the areal eastward. *Diaphorina chobauti* is new for Europe.

According to the present note, there appears to be a concentration of species of *Psylloidea* in Trentino and in Alto Adige and a great scarcity of species in South and insular Italy. In reality the reason is for the great number of researches by the Authors in the cited Provinces, for topographical causes, as against the few researches in the Southern Regions, for the greater distances. A larger number of researches are still necessary for these last regions.

Observations regarding the list of the material.

A) *Locality.* - It is reported in the first place the name of the Region in spaced letters. The names of the Province and of the Commune follow the name of the Region; when useful, more specific or general localities are added; the altitude follows expressed in metres above sea level. The localities are reported from North to South and from East to West. The Region « Trentino-Alto Adige », with two autonomous Provinces with remarkable climatic differences, is considered by

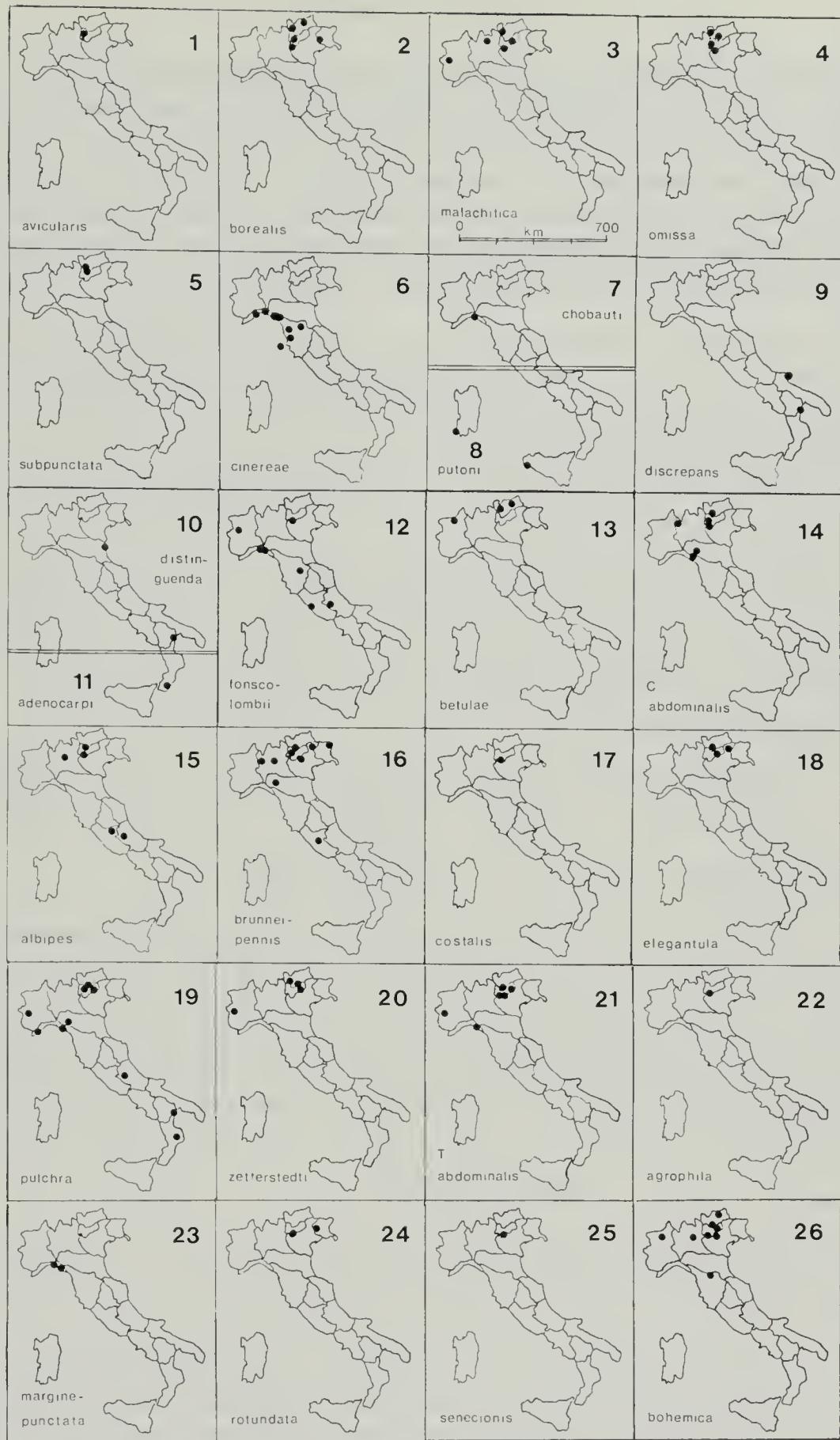


Fig. 1. — Orientative geographical maps of the 26 cited species.

us as two separated Regions. On the contrary, due to the similar climate and flora, we re-unite Piemonte with Valle d'Aosta and Abruzzo with Molise.

Localities separated by ; (semicolon) indicate that they belong to the same Province, whose name is not repeated. Localities separated by . (point) indicate that they belong to the same Region. The separation among different Regions is indicated by - (hyphen).

B) *Collectors*. - All the material was collected, separately or jointly, and determined by us. Therefore we indicate only the names of other collectors or determinators. The great prevalence of the material is preserved in the Authors' collections.

Also we note the number of the collected specimens; if they are more than 100, we note « many ».

C) *Host plants*. - The host plant is indicated only after having been examined by us. For the name of the plants, we follow the work of PIGNATTI 1982, which is very similar to TUTIN's « Flora Europaea » (1964-1980); if there are differences, we report the two names.

D) *Abridgements*

C. = Central	m = metres a.s.l.	S. = South
D. = Distribution	M. = mount	W. = West
E. = East	N. = North	
exx = specimens	O. = Observations	

Acknowledgements. - We thank the Colleagues who supplied to us material or who have collaborated with us in the collecting: Dr. Attilio Carapezza, Miss Chiara Cassano, Prof. Luigi Masutti, Prof. Raffaele Monaco, Dr. Roberto Poggi, Dr. Carmelo Rapisarda, and particularly our friend Nino Sanfilippo of Genova. We thank also Dr. G. Tomasi, Director of the Museo Tridentino of Natural Sciences of Trento, who granted contributions for our psyllidological researches in Trentino-Alto Adige, and Dr. D. Burckhardt of ETH of Zürich, for the determination of *Diaphorina* and *Trioza agrophila*.

1. *Aphalaroides avicularis* Ossiannilsson, 1981

Trentino, Trento, Mezzolombardo, m 230, 16.VII.84, 7 ♂♂, 5 ♀♀; 22.VII.84, 7 ♂♂, 9 ♀♀; 20.VIII.84, 14 ♂♂, 4 ♀♀; 1.IX.84, 3 ♂♂, 1 ♀; all on *Polygonum aviculare*.

D. - The distribution of *A. avicularis* is still not specified: it is now cited only for Sweden (OSSIANNILSSON & JANSSON 1981) and, without exact locality, for Czechoslovakia (LAUTERER 1982) and for Switzerland (BURCKHARDT 1983a: 106, 107; 1983b: 52). New for S. Europe.

O. - *A. avicularis* was recognized only in 1981 when it was described as subspecies of *A. rumicicola* Klimaszewski. LAUTERER 1982: 136-138, with accurate observations during breeding, fixed *avicularis* as a valid species, distinct from *rumicicola* mostly for the biological characters: *avicularis* lives only on *Polygonum aviculare*, whereas *rumicicola* lives on *Rumex* ssp. This is the only example in Palaearctic *Psylloidea* of two species morphologically almost undistinguishable but well characterized for their host plant.

2. *Aphalara borealis* Heslop-Harrison, 1949

Friuli-Venezia Giulia, Pordenone, Aviano, Monte Cavallo, Val Arnieri, m 1500, 1.IX.80, 1 ♂, on *Larix decidua*. - Veneto, Verona, Brentino, m 120, 20.VIII.82, 1 ♂, on *Polygonum*; Malcesine, San Michele, m 600, 24.X.65, 2 ♂♂, on *Pinus nigra*. - Alto-Adige, Bolzano-Bozen, Bressanone-Brixen, Laufen, m 890, 21.VIII.57, 4 ♂♂, 4 ♀♀, on *Polygonum*; Parcines-Partschins, Rablà-Rabland, m 500, 11.VIII.82, 1 ♂, 1 ♀, on *Polygonum*. - Trentino, Trento, Rovereto, Vallunga, m 500, 21.X.65, 2 ♂♂, on *Pinus*.

On the whole, *A. borealis* was collected by us in 4 Regions of N. Italy, with 6 findings (3 on *Polygonum* in August and 3 on conifers in September and October), between 120 and 1500 m, in 12 specimens.

D. - Rare. From Great Britain and Scandinavia, through C. and E. Europe and C. Asia, to Mongolia. BURCKHARDT 1983a, b, reported the species for Switzerland.

O. - LAUTERER 1979 explained some controversial points for its determination.

3. *Craspedolepta malachitica* (Dahlborn, 1850)

Alto Adige, Bolzano-Bozen, Laces-Latsch, m 650; id., San Martino al Monte-St. Martin am Vorberg, m 1300-1700; Silandro-Schlanders; Lasa-Laas. - Trentino, Trento, Valfloriana, Casatta, m 900; Garniga, m 830; Terragnolo, Potrich-Scottini, m 1000. - Lombardia, Sondrio, Val Malenco (leg. A. Servadei). - Piemonte, Torino, Bussoleno, Chianocco, m 600; Chiomonte, m 750; Exilles, m 900 (leg. R. Poggi); Salbertrand, m 1000; Oulx, m 1130; Sestriere, m 1900.

On the whole, *C. malachitica* was collected by us in 4 Regions of N. Italy, in 14 localities, with 17 findings, between 600 and 1900 m, from May to August (we have also one findings of 5 specimens the 19.X.67 at Silandro), in more than 200 specimens, almost always on the host plant, *Artemisia absinthium*.

D. - From Great Britain and Scandinavia to Mongolia. *C. artemisiae* and *C. latior*, which are very like to *malachitica*, so far has not been

collected in Italy; the reports by TAMANINI 1977: 106 for *latior* are to be related to *malachitica*. Also in Switzerland *malachitica* is known, but not *artemisiae* and *latior* (BURCKHARDT 1983a: 68 and 75; 1983b: 461). Therefore *C. malachitica* is new for S. Europe.

4. *Craspedolepta omissa* Wagner, 1944

Alto-Adige, Bolzano-Bozen, Sarentino-Sarntal, m 950, 8.VIII.82, 1 ♀; Bolzano-Bozen, m 250, 8.VIII.82, 1 ♀; Parcines-Partschins, Rablà-Rabland, m 500, 27.VII.83, 5 ♂♂, 20 ♀♀. - Trentino, Trento, Predazzo, m 1000, 11.VIII.83, 28 ♂♂, 16 ♀♀; Romeno, m 900, 21-22.VII.82, 8 ♂♂, 20 ♀♀, 22.VII.84, 4 ♂♂, 11 ♀♀; Campodenno, Cressino, m 300, 27.VIII.83, 1 ♀; Mezzolombardo, m 230, 16.VII.84, 15 ♂♂, 30 ♀♀; 20.VIII.84, 1 ♀; Vigolo, m 700, 11.VIII.84, 1 ♂, 2 ♀♀; Garniga, m 800, 14.VIII.82, 1 ♀; Rovereto, San Giorgio, m 180, 22.VI.83, 2 ♂♂, 7 ♀♀; Rovereto, Lizzana, m 300, 6.VIII.82, 2 ♀♀.

On the whole, *C. omissa* was collected by us in 2 Regions of N. Italy, in 11 localities, with 13 findings, between 180 and 1000 m, from June to August, in more than 120 specimens, always on *Artemisia vulgaris*. *C. omissa* was obtained in 3 localities (Mezzolombardo, Garniga and Rovereto Lizzana) in August with *C. conspersa*, which lives on the same plant, but seems to have a more tardy development; in 1984 *C. omissa* was frequent at Mezzolombardo in July and *conspersa* was missing; *omissa* in August was rare and *conspersa* was present; *omissa* in early September was missing and *conspersa* was the only species there.

D. - From C. Europe to Mongolia. BURCKHARDT 1983b: 46 did not collect the species in Switzerland, but attributes to *omissa* the specimens reported by SCHAEFER 1947 as *innoxia*.

5. *Craspedolepta subpunctata* (Förster, 1848)

Alto-Adige, Bolzano-Bozen, Senale San Felice-Unsere Liebe F. im W. St. Felix, Passo delle Palade-Gampen Pass, m 1500, 21.VII.84, 5 ♂♂, 9 ♀♀, 3 nymphs, on *Epilobium* (or *Chaemenerion*) *angustifolium*. - Trentino, Trento, Ruffré, Mendola, M. Penegal, m 1500-1600, 14-22.VII.84, 22 ♂♂, 23 ♀♀, on *Epilobium angustifolium*.

D. - From Europe to Mongolia and Alaska; W. Canada.

6. *Strophingia cinereae* Hodkinson, 1971

The genus *Strophingia*, which till 1971 included only the classic *S. ericae*, has now 8 species from the W. Palaearctic Region (HODKINSON & HOLLIS 1981). The abundant material collected by us in C. and S. Italy still necessitates a control. We cite only few localities:

Liguria, Savona, Spotorno, m 250, 19.X.83, 3 exx. Genova, Recco, Monte di Portofino, m 400, 6.VII.82, 30 exx; Casarza, Passo del Bocco, M. Roccagrande, m 900,

1.XI.84, 8 exx. La Spezia, Deiva, m 100, 6.VI.82, 15 exx; Carro, m 400, 21.X.83, 4 exx; 3.VI.84, 4 exx. - Toscana, Massa-Carrara, Zeri, Codolo, m 400, 12.VI.83, 30 exx. Lucca, Massarosa, Lago di Massaciuccoli, m 10, 14.VI.83, 11 exx; Gombitelli, m 500, 14.VI.83, 30 exx. Livorno, Isola Capraia, 20.IX.79, 15 exx. Firenze, Barberino di Mugello, m 300, 20.VI.83, 70 exx.

S. cinereae was collected by us between 10 and 900 m, from June to October, always on *Erica arborea*, except the specimens from Barberino, on *E. scoparia*. We found *S. cinereae* with *S. ericae* only once: at Barberino, where *E. scoparia* was flourishing close to *Calluna vulgaris*; *S. ericae* was feeding on this last plant species.

D. - Great Britain, France and Spain (Mallorca). Our findings enlarge eastward the areal of the species.

7. *Diaphorina chobauti* Puton, 1898

Liguria, Genova, Genova, Monte Fascie, Apparizione, m 400, 7.X.83, 1 ♀; 1.VI.84, 1 ♂; 11.X.84, 1 ♀. The first specimen was kindly determined by Dr. D. Bureckhardt, who is at present revising the Westpalaearctic species of the genus, and whom we thank.

D. - *D. chobauti* was described from Algeria (Biskra) and was known up to 1983 only for this locality. The species is new for Europe.

8. *Diaphorina putoni* Löw, 1879

Sicilia, Trapani, Mazara del Vallo, Capo Feto, m 5, leg. A. Carapezza, 28.V.78, 12 ♂♂, 9 ♀♀. - Sardegna, Cagliari, Carloforte, Isola S. Pietro, m 10, 2.IX.77, 16 ♂♂, 18 ♀♀, on *Thymelaea hirsuta*. The species was kindly determined by Dr. D. Bureckhardt, whom we thank.

D. - Mediterranean; the exact distribution is still to be determined.

O. - The work by BOSELLI 1960 (pp. CXXXIX-CLVI, 8 groups of figs.) concerning «*D. putoni*» from Sardegna, Cagliari, on *Lycium europaeum*, is probably to be related to *D. lycii* Loginova, 1978, sensu BURCKHARDT 1983a: 135-137, 146-147.

9. *Psyllopsis discrepans* (Flor, 1861)

Puglie, Foggia, Monte Sant'Angelo, Gargano, Foresta Umbra, leg. Istituto Entomologia Agraria Bari, 6.VI.82, 3 ♀♀. - Basilicata, Matera, Policoro, bosco, m 2, 24.V.82, 1 ♂, 6 ♀♀, on *Fraxinus oxycarpa* (*F. angustifolia oxycarpa*).

D. - From Europe to Armenia and Tadzhikistan.

10. *Psyllopsis distinguenda* Edwards, 1913

Emilia-Romagna, Ravenna, Ravenna, Punta Alberete, m 5, 20.VII.82, 7 ♂♂, 9 ♀♀, 1 nymph, on *Fraxinus*, with *Anthocoris nemoralis*. - Basilicata, Matera, Policoro, bosco, 24.V.82, 3 ♀♀, on *Fraxinus oxycarpa* (*F. angustifolia oxycarpa*).

D. - Sporadic localities in S. England, Poland, Switzerland, Czechoslovakia, Rumania, SW European U.S.S.R., Abkhazija and Georgia.

O. - The biology of *P. distinguenda* was recently described by LAUTERER 1982.

11. *Arytaina adenocarpi* Löw, 1880

Calabria, Reggio Calabria, Santo Stefano in Aspromonte, Gambarie, 27.VII.57, 10 ♂♂, 7 ♀♀; Delianuova, m 585, 30.VI.58, 1 ♀; Fabrizia, m 1000, 23.VIII.61, 1 ♂, 9 ♀♀; all on *Adenocarpus complicatus*.

D. - S. France (Loc. typ.) and Spain.

12. *Spanioneura fonscolombii* Förster, 1848

Trentino, Trento, Rovereto, m 200-270, many findings through all the year. - Piemonte, Torino, Susa, m 500, 29.VI.83, 1 ♂, 1 ♀. - Liguria, Genova, Genova, m 10, 4.VI.83, 21 ♂♂, 23 ♀♀; 2.VI.84, 2 ♂♂, 4 ♀♀; Casarza, Bargone, m 150 and 500, 1.XI.84, 12 ♂♂, 24 ♀♀; Casarza, Rocca grande, m 900, leg. N. Sanfilippo 27.III.83, many; idem, 1.XI.84, 5 ♂♂, 3 ♀♀. - Toscana, Siena, Siena, Montalbuccio, m 300, 16.VI.83, many specimens. - Lazio, Roma, Roma, Orto Botanico, m 40, 12.VI.84, 12 ♂♂, 23 ♀♀. - Abruzzo, L'Aquila, Avezzano, Madonna di Pietra Acquaria, m 850, 1.IX.81, 12 ♂♂, 17 ♀♀.

On the whole, *S. fonscolombii* was collected by us in 6 Regions of N. and C. Italy, with numerous findings, between 10 and 900 m, all through the year, sometimes abundant, on *Buxus sempervirens*, commonly cultivated in the gardens; only the findings from Casarza and Avezzano was on wild *Buxus*.

D. - Few findings are in the bibliography on *S. fonscolombii* and we report they: S. Britain (KLOET & HINKS 1964: 66; HODKINSON & WHITE 1979: 40, uncommon); S. France (7 localities: FOERSTER 1848: 94, Loc. typ. Aix-en Provence; SCOTT 1876: 551; LAMBERTIE 1901: 220 and 1910: 96; SCHAEFER 1949: 54; BURCKHARDT 1983b: 55); Switzerland (5 localities: SCHAEFER 1949: 54; BURCKHARDT 1983b: 55); Spain (5 localities: VONDRAČEK 1951: 176; RAMIREZ GOMEZ 1956: 70); Azerbaijan (LOGINOVA 1968: 293). The quotation from Germany is erroneous. It is cited a single finding from U.S.A., Connecticut (BRITTON 1916: 186, reported in TUTHILL 1943: 544).

O. - According to our observations, in N. Italy (Rovereto) the species overwinters as adult.

13. *Psylla betulae* (Linnaeus, 1758)

Alto Adige, Bolzano-Bozen, Bressanone-Brixen, Eores-Afers, S. Giorgio, m 1550, 13.IX.75, 2 ♂♂, 4 ♀♀, on *Betula* sp.; Lagundo-Algund, Rio di Lagundo-Aschbach, m 1400, 11.VIII.82, 1 ♀, on *Larix decidua*. - Piemonte, Vercelli, Alagna Valsesia, Rifugio Città di Mortara, m 2100, 28.IX.75, 1 ♂ on *Alnus viridis*.

P. betulae seems to be very rare in Italy, only in sporadic localities at high altitude.

D. - From Great Britain and N. and C. Europe to Mongolia and Japan. New for S. Europe.

14. *Cacopsylla abdominalis* (Meyer-Dür, 1871)

Alto Adige, Bolzano-Bozen, Merano-Meran, by the side of the Adige river, m 320, 27.VII.83, 3 ♂♂, 6 ♀♀, on *Salix*. - Trentino, Trento, Campodenno, Crescino, m 300, 22.VII.82, 1 ♂, 1 ♀; 24.VIII.82, 4 ♀♀; 27.VIII.83, 15 ♂♂, 18 ♀♀, on *Salix purpurea*; Ala, Ala torrent, m 150, 20.VIII.82, 1 ♀; 4.IX.83, 1 ♂, on *Salix*. - Lombardia, Varese, Monte Campo dei Fiori, m 1100, 19.XI.83, 1 ♀, on *Picea excelsa*. - Emilia-Romagna, Parma, Berceto, m 700, 11.VI.83, 16 ♂♂, 12 ♀♀, on *Salix*. - Toscana, Massa Carrara, Zeri, m 1000, 12.VI.83, 1 ♀.

On the whole, *C. abdominalis* was collected by us in 5 Regions of N. and C. Italy, in 6 localities, with 9 findings, between 150 and 1100 m, from June to September, in more than 70 specimens, on *Salix* (once on *S. purpurea*) and in November only a ♀ on *Picea excelsa*.

D. - Rare. From C. Europe to Georgia and Mongolia; Greenland; it is known in Europe for Poland, Switzerland, Austria, Czechoslovakia, Rumania, Greece and S. European USSR.

O. - *C. abdominalis* is often confused with *C. ambigua*, which in Italy is much more common and has wider distribution. It differs for its alar microsculpture.

15. *Cacopsylla albipes* (Flor, 1861)

Trentino, Trento, Ruffré, M. Penegal, m 1650, 20.VIII.84, 1 ♀ newly hatched, 8 nymphs; idem 1.IX.84, 1 ♂, all on *Sorbus aria*; Isera, Bordala, m 1200, 25.VII.83, 1 ♂, 4 ♀♀. - Lombardia, Como, Ballabio, m 950, 19.I.83, 1 ♀ on *Pinus nigra* and 1 ♀ on *Picea excelsa*; idem, Piani Resinelli, m 1300, 19.I.83, 1 ♀ on *Picea excelsa*; idem, m 1350, 20.VII.83, 1 ♂ on *Salix*. - Lazio, Rieti, Micigliano, M. Terminillo, M. Bove, m 1680, 26.VIII.81, 2 ♀♀ on *Rhamnus alpinus*. - Abruzzo, L'Aquila, Ovindoli, Monti della Magnola, m 1800, 2.IX.81, 2 ♂♂ on *Fagus sylvatica*; Collelongo, m 1560, 30.VIII.81, 1 ♂ on *Taxus baccata*.

On the whole, *C. albipes* was collected by us in 4 Regions of N. and C. Italy, in 6 localities, with 10 findings, between 950 and 1800 m, in 16 specimens, in August and September on *Sorbus aria* and in January and from July to September on conifers and other shelter plants.

D. - Great Britain (rare) and few localities of France, Germany, Poland, Austria, Czechoslovakia, Bulgaria, Crimea, Georgia.

O. - *C. albipes* overwinters as adult in N. Italy.

16. *Cacopsylla brunneipennis* (Edwards, 1896)

Friuli-Venezia Giulia, Udine, Tarvisio, Coccau, m 700, leg. L. Masutti 4.V.83, 2 ♂♂, 2 ♀♀. - Veneto, Belluno, Auronzo, Riserva Somadida, Rio S. Vito, Ponte degli Aceri, m 1200, leg. L. Masutti, 6.V.83, 2 ♂♂, 2 ♀♀ on *Salix appendiculata*. Vicenza, Lastebasse, Fiorentini, Le Fratte, m 1400, 24.IX.83, 2 ♂♂, 7 ♀♀, on *Picea excelsa*; Arsiero, Cima Valbona near M. Toraro, m 1700, 5.II.83, 3 ♂♂, 1 ♀. Verona, Dolcé, m 150, 2.II.83, 1 ♂, on *Picea excelsa*. - Alto Adige, Bolzano-Bozen, Ora-Auer, m 250-350, 20.II.83, 8 ♂♂, 15 ♀♀, on *Pinus nigra*, *P. sylvestris*, *Thuja occidentalis*. - Trentino, Trento, Ruffrè, M. Penegal, m 1600-1720, 18.VII, 20.VIII, 1.IX.84, 32 ♂♂, 49 ♀♀, on *Salix caprea* (VII) and *Picea excelsa*. - Lombardia, Bergamo, Oltre il Colle, M. Arera, m 1700-1850, 8.VIII.76, 2 ♂♂, 3 ♀♀ on *Salix glabra*; Cornalba, M. Alben, m 1700, 7.VIII.76, 10 ♂♂, 10 ♀♀ on *Salix aurita* and 4 ♂♂, 13 ♀♀, nymphs, on *Salix glabra*. Como, Ballabio, Piani Resinelli, m 1350, 20.VII.83, 1 ♂, on *Salix*. Varese, Inarzo, m 250, 26.V.84, 5 ♂♂, 12 ♀♀, on *Salix cinerea*. - Emilia-Romagna, Parma, Berceto, m 700, 11.VI.83, 4 ♂♂, 9 ♀♀ on *Salix*. - Lazio, Frosinone, Filettino, M. Cotento, Campo Staffi, m 1800, 29.VIII.81, 6 ♂♂, 24 ♀♀, on *Fagus sylvatica*.

On the whole, excluding the findings of ♀♀ alone, the determination of which is uncertain, *C. brunneipennis* was collected by us in 7 Regions of N., C. and S. Italy, in 13 localities, with 18 findings, between 150 and 1850 m, in more than 200 specimens, from May to August on *Salix* and in February and July-September on conifers.

D. - *C. brunneipennis* s.l. is known from Great Britain, through N., C. and E. Europe, to Caucasus.

O. - The interpretation of *brunneipennis-klapaleki* complex is now controversial. Our findings are all to be reported to the « form » with clear forewing (*klapaleki* Sulc, 1909).

17. *Cacopsylla costalis* (Flor, 1861)

Trentino, Trento, Terragnolo, Potrich, m 1000, 4.II.83, 1 ♂, on conifers.

D. - Few localities from N., C. and SE Europe; Turkey.

18. *Cacopsylla elegantula* (Zetterstedt, 1840)

Veneto, Belluno, Auronzo, Riserva Naturale Somadida, Rio S. Vito, Ponte degli Aceri, m 1200, leg. L. Masutti, 6.V.83, 6 ♂♂, 6 ♀♀, on *Salix appendiculata*. - Alto Adige, Bolzano-Bozen, Castelrotto-Kastelruth, Razzes-Ratzes, m 1200, 9.VIII.83, 1 ♂; Nova Ponente-Deutschnofen, Pietralba-Maria Weissenstein, m 1500, 7.IV.83, 4 ♂♂, 11 ♀♀, on *Picea excelsa*; Trodena-Truden, S. Lugano, m 1000, 24.IV.84, 1 ♂, 2 ♀♀, on *Picea excelsa*. - Trentino, Trento, Predazzo, m 1000, 24.IV.84, 1 ♂, on *Picea excelsa*.

On the whole, *C. elegantula* was collected by us in 3 Regions of N. Italy, in 5 localities, between 1000 and 1500 m, in 23 specimens, on *Salix appendiculata* in May, on conifers in April and wandering in August.

D. - From N., C. and E. Europe to Siberia, Mongolia and Japan.

19. *Cacopsylla pulchra* (Zetterstedt, 1840)

Alto Adige, Bolzano-Bozen, Ora-Auer, m 250-350, 20.II.83, 15 ♂♂, 14 ♀♀, on *Pinus nigra*; Montagna-Montan, m 500, 24.IV.84, 2 ♂♂, 3 ♀♀ on *Salix*; Aldino-Aldein, m 1200, 7.IV.83, 2 ♂♂ on conifers; Trodena-Truden, S. Lugano, m 1100, 24.IV.84, 2 ♂♂, 6 ♀♀, on conifers. - Trentino, Trento, Predazzo, m 1000, 24.IV.84, 2 ♂♂, 6 ♀♀; Ruffré, M. Penegal, m 1600, 1.IX.84, 2 ♂♂, all on *Picea excelsa*. - Piemonte, Torino, Sestriere, m 1900, 1.VII.83, 3 ♂♂, 6 ♀♀, on *Salix foetida*. - Liguria, Imperia, Pigna, Colla Melosa, m 1500, leg. Sanfilippo 7.I.84, 2 ♂♂, 4 ♀♀, on *Picea excelsa*. Genova, Casarza, Passo del Bocco, M. Roccagrande, m 900, 1.XI.84, 3 ♂♂, 3 ♀♀ on *Pinus*. La Spezia, Carro, m 400, 3.VI.84, 6 ♂♂, 6 ♀♀, 1 exuvia, on *Salix einerea*. - Emilia-Romagna, Parma, Berceto, m 700, 11.VI.83, 1 ♂, on *Salix*. - Abruzzo, L'Aquila, Ovindoli, Monti della Magnola, m 1400, 2.IX.81, 1 ♂, 7 ♀♀, on *Salix*. - Basilicata, Matera, Policoro, bosco, m 3, 24.V.82, 1 ♂. - Calabria, Cosenza, Spezzano della Sila, Lago Cecita, m 1150, 15.III.84, 4 ♂♂, 3 ♀♀, on *Abies*.

On the whole, *C. pulchra* was collected by us in 8 Regions of N., C. and S. Italy, in 12 localities, between 3 and 1600 m, in about 100 specimens, on *Salix* (April-July and September) and on conifers (January-April and September).

D. - From Great Britain and N. and C. Europe to Japan.

20. *Cacopsylla zetterstedti* (Thompson, 1877)

Alto Adige, Bolzano-Bozen, Castelbello-Kastelbel, m 950, 4.X.68, 6 ♂♂, 6 ♀♀, some newly-hatched; Silandro-Schlanders, m 750-800, 1.X.67, 11 ♂♂, 12 ♀♀, newly-hatched; 2.VI.84, 4 ♀♀ newly hatched, 2 nymphs; Lasa-Laas, m 850-900, 8.X.67, 9 ♂♂, 12 ♀♀, some newly-hatched; 24.IX.68, 3 ♀♀ newly-hatched; 8.VI.75, 18 ♂♂,

10 ♀♀, 2 nymphs; 24.VII.78, 11 ♂♂, 14 ♀♀, some newly-hatched; 2.VI.84, 3 nymphs. - Trentino, Trento, Predazzo, Val Travignolo, m 1000, 6.VIII.77, 8 ♂♂, 10 ♀♀; 11.VIII.83, 2 ♂♂, 9 ♀♀. - Piemonte, Torino, Oulx, m 1100, 26.VI.83, 1 ♂; Cesana, m 1300, 6.VII.84, 7 ♂♂, 18 ♀♀; Sestriere, m 1900, 30.VI.83, 22 ♂♂, 20 ♀♀, 20 nymphs; id., m 1700, 1.VII.83, 3 ♂♂, 5 ♀♀, 1 nymph.

On the whole, *C. zetterstedti* was collected by us in 3 Regions of N. Italy, in 6 localities, with 13 findings, between 750 and 1900 m, in June-October, in about 200 specimens, always on *Hippophae rhamnoides*.

D. - Great Britain (rare), N., C. and E. Europe; Armenia and Georgia. New for S. Europe.

O. - According to our findings, in N. Italy *C. zetterstedti* perhaps overwinters in the egg stage and has two generation per year.

21. *Trioza abdominalis* Flor, 1861

Veneto, Vicenza, Arsiero, Cima Valbona near M. Toraro, m 1700, 5.II.83, 2 ♂♂, 5 ♀♀; idem m 1800, 3 ♀♀; Lastebasse, Fiorentini, Le Fratte, m 1400, 5.IX.83, 3 ♂♂, 4 ♀♀; idem 24.IX.83, 1 ♂, 1 ♀. - Alto Adige, Bolzano-Bozen, Aldino-Aldein, m 1200, 7.IV.83, 1 ♂; Nova Ponente-Deutschnofen, Madonna di Pietralba-Maria Weissenstein, m 1500, 7.IV.83, 1 ♂; Trodena-Truden, San Lugano, m 1100, 24.IV.84, 1 ♂, 2 ♀♀. - Trentino, Trento, Predazzo, m 1000, 24.IV.84, 1 ♂, 1 ♀; idem, Paneveggio, m 1500, 10.IX.83, 10 ♂♂, 4 ♀♀; Folgaria, locality Lastebasse, between Malga I and II Posta, m 1400, 3.X.84, 1 ♀; Folgaria, Coe, m 1600, 5.II.83, 5 ♂♂, 7 ♀♀; Folgaria, Serrada, Cogola, m 1250, 9.XI.83, 1 ♂; Folgaria, Serrada, Fornaci, m 1300, 4.II.83, 30 ♂♂, 50 ♀♀; idem 25.IV.84, 5 ♂♂, 30 ♀♀; Ronzo, Bordala, m 1250, 10.XI.84, 1 ♂. - Piemonte, Torino, Cesana, m 1650, 21.IX.84, 8 ♂♂, 6 ♀♀. - Liguria, Genova, Casarza, Bargone, m 500, 1.XI.84, 2 ♂♂, 2 ♀♀; idem, Passo del Bocco, M. Rocca-grande, m 900, 1.XI.84, 2 ♂♂, 1 ♀. La Spezia, Carro, M. S. Nicolao, m 800, 2.XI.84, 3 ♂♂, 2 ♀♀.

On the whole, *T. abdominalis* was collected by us in 5 Regions of N. Italy, in 14 localities, with 19 findings, between 500 and 1800 m, in February, April, September-November, in more than 160 specimens, on conifers, mainly *Picea excelsa*.

D. - Great Britain (rare), Scandinavia, C. Europe, N. E. and W. European U.S.S.R. In Mongolia these is *T. abdominalis orientalis*. New for S. Europe, because the report by RAMIREZ GOMEZ 1960 for Spain concern an another species (KLIMASZEWSKI 1967: 258).

O. - The species needs revision. The host plant also needs to be better defined: *Alchemilla gr. vulgaris*, *Chrysanthemum* and *Achillea millefolium* were cited.

22. *Trioza agrophila* Löw, 1888

Trentino, Trento, Folgaria, Serrada, Fornaci, m 1300, 4.II.83, 1 ♂ on *Picea excelsa*, with a hundred of *T. abdominalis*; this specimen was kindly determined by Dr. D. Burekhardt, whom we thank.

D. - Scandinavia, France, C. Europe, SW European USSR, Caucasus.

23. *Trioza marginepunctata* Flor, 1861

Liguria, Genova, Genova, Righi, m 250, 14.XII.84, 1 ♂, 2 ♀♀; Genova, M. Cor-dona, m 700, 7.X.83, 1 ♂; La Spezia, Framura, m 10, 20.II.83, 1 ♂, 1.XII.83, 1 ♀; idem, m 80, 3.XII.83, 1 ♂ on *Rhamnus alaternus*. Three of the cited findings were made by our Colleague N. Sanfilippo.

D. - Very rare. Few localities of S. Europe: S. France (Marseille, Loc. typ., FLOR 1861: 398; Montpellier, LOEW 1880: 584; Nice, only galls, MASSALONGO 1906: 8; S. France, VONDRAČEK 1951: 176); Spain (Guipuzcoa, RAMIREZ GOMEZ 1960: 38); Yugoslavia (Susak, LOEW 1888: 23); and Israel (HALPERIN, HODKINSON, RUSSEL & BERLINGER 1982: 39).

24. *Trioza rotundata* Flor, 1861

Friuli-Venezia Giulia, Pordenone, Aviano, Monte Cavallo, Val Arnieri, m 1600-1650, 4.IX.80, 26 ♂♂, 20 ♀♀, on *Abies alba*, *Picea excelsa* and *Fagus sylvatica*. - Trentino, Trento, Folgaria, locality Lastebasse, between Malga I and II Posta (Prà Bertoldo), m 1400, 24.IX.83, 4 ♂♂, 6 ♀♀, on *Picea excelsa*; id., 3.X.84, 1 ♂, 3 ♀♀; Vallarsa, Col Santo, m 1900, 10.X.76, 1 ♀, on *Picea excelsa*.

D. - Sweden, C. Europe, Rumania, Bulgaria; Georgia.

25. *Trioza senecionis* (Scopoli, 1763)

Veneto, Vicenza, Lastebasse, locality Fiorentini, Le Fratte, m 1450, 5.IX.83, 1 ♂, on *Picea excelsa*; 24.IX.83, 4 ♂♂, 3 ♀♀, on *Senecio fuchsii*. - Trentino, Trento, Folgaria, locality Lastebasse, between Malga I and II Posta, in the damp forest, m 1400, 4 km west from preceding locality, 24.IX.83, 14 ♂♂, 21 ♀♀, 50 exuviae and nymphs; 3.X.84, 10 ♂♂, 10 ♀♀, nymphs; all on *Senecio fuchsii*.

D. - Central Europe (Poland, Switzerland, Austria, Czechoslovakia), Yugoslavia, Rumania; Caucasus. VONDRAČEK 1951: 177 cited the species of the Melichar Collection, from « Italia, Flitsch »: this locality (= Bovek, in Italian language Plezzo) is in Slovenia, now in Yugoslavia. The mistake of VONDRAČEK is reported in the Check-List of KLIMASZEWSKI 1973: 258. The quotation « Germania », reported in some Catalogues, has origin by

LOEW (1882, Katalog: 214) which reported « Aust, Grm »: the last locality was called in question by SULC (1912: 40) and it was never confirmed.

O. - *T. senecionis* was described from Giovanni Antonio SCOPOLI (born in Cavalese, Trento Province) in his *Entomologia Carniolica*, 1763: 140. In the above-mentioned locality of Trentino the species was abundant, at cited data, with adults, nymphs and exuviae, on host plant. Nymphs were on the lower surface of the leaves, normally near the venations, also ten specimens for a single leave. We did not noticed galls, while HAUPT 1935: 244 writes « Blattfläche gekräuselt, mit schwachen Erhebungen ».

26. *Bactericera bohemica* (Sulc, 1913)

Veneto, Vicenza, Asiago, Portule, m 1950, 22.IX.68, 1 ♂, 1 ♀, on *Juniperus communis*; Asiago, Malga Larici, m 1600, 22.IX.68, 4 ♂♂ on *Picea excelsa*; Lastebasse, Fiorentini, Le Fratte, m 1450, 5.IX.83, 1 ♂, 6 ♀♀ and 24.IX.83, 7 ♀♀, on *Picea excelsa*. - Alto Adige, Bolzano-Bozen, Malles-Mals, Mazia-Matsch, m 2150, 30.IX.67, 1 ♂, 2 ♀♀, on *Pinus cembra*; idem, Pleres, m 2450, 30.IX.67, 1 ♂, 1 ♀, on *Junip. comm.*; Badia-Abtei, San Cassiano, Prati Sciadii, m 1800 and Bosco Forame, m 1750, 26.VIII.65, 3 ♂♂; Aldino-Aldein, m 1100, 20.II.83, 3 ♂♂, and 7.IV.84, 1 ♀, on *Juniperus communis*. - Trentino, Tesero, Pampeago, m 1850, 26.VIII.64, 7 ♂♂, 9 ♀♀; Tesero, Passo Feudo, m 2120, 20.VIII.64, 4 ♂♂, 4 ♀♀; Pieve Tesino, Valle Cima d'Asta, m 1700, 28.VIII.73, 1 ♀; Folgaria, m 1300, 23.VIII.67, 1 ♂, on *Juniperus communis*; Ronzo, M. Biavena, m 1670, 20.IX.56, 1 ♀; Mori, M. Biavena, m 1200, 4.VIII.71, 1 ♀; Concei, M. Cadria, m 1600, 6.IX.59, 2 ♂♂, *Abies alba*; Tiarno di Sopra, M. Tremalzo, m 1800, 29.VIII.59, 2 ♀♀. - Lombardia, Bergamo, Oltre il Colle, M. Arera, m 1684, 8.VIII.76, 1 ♀. - Piemonte e Valle d'Aosta, Aosta, Cheneil, m 1900, 10.VII.55, 1 ♀. - Toscana, Firenze, Barberino di Mugello, S. Lucia, m 700, 7.III.84, 1 ♀.

On the whole, *B. bohemica* was collected by us in 6 Regions of N. and C. Italy, in 17 localities, between 700 and 2450 m, from February to April and from July to September, in about 50 specimens, always on conifers or without indication of host plant.

D. - N., C. and E. Europe, Romania.

B I B L I O G R A F I A

- BOSELLI F. B., 1960 - Studi sugli Psyllidi. XI. Biologia e sviluppo di *Diaphorina putoni* Loew, specie nuova per la fauna italiana - *Annali Speriment. agr.*, Roma, Nuova serie, 14 (suppl.): CXXXIX-CLVI, 8 groups of figs.
- BURCKHARDT D. H., 1983a - Revision der Aphalaridae der westlichen Palaearktis und Liste der schweizerischen Psyllodea - *Diss. ETH*, Zürich, nr. 7262, 206 pp., 43 plates.

- BURCKHARDT D., 1983b - Beiträge zur Systematik der schweizerischen Psyllodea - *Entomologica basiliensis*, Basel, 8: 43-83, 42 figs.
- FOERSTER A., 1848 - Uebersicht der Gattungen und Arten in der Familie der Psylloiden - *Verh. naturh. Ver. preuss. Rheinl.*, Bonn, 5 (3): 65-98.
- CONCI C., 1982 (1981) - I lavori di Franz Löw (1829-1889) sugli Psylloidea e le loro date di pubblicazione - *Mem. Soc. ent. ital.*, Genova, 60: 123-124.
- CONCI C. & TAMANINI L., 1982 - *Psylla limbata*, nuova per l'Italia, da *Rhamnus alpinus* - *Atti Soc. ital. Sci. nat. Museo civ. Stor. nat. Milano*, 123 (4): 483-494, 27 figs.
- CONCI C. & TAMANINI L., 1983a - Attuali conoscenze sugli Psylloidea italiani - *Atti XIII Congr. naz. ital. Ent.*, Sestriere, *Tip. Grafital*, Torino: 319-326.
- CONCI C. & TAMANINI L., 1983b - *Crastina (Eustigmatia) loginovae* n. sp., dell'Italia centrale, da *Tamarix gallica*, un genere nuovo per l'Europa centro-occidentale - *Atti Soc. ital. Sci. nat. ecc.* 124 (1-2): 97-104, 25 figs.
- CONCI C. & TAMANINI L., 1983c - *Craspedolepta carinthica* in Alto Adige, nuova per l'Italia, da *Artemisia* sp. - *Studi trent. Sci. nat., Acta biol. Trento*, 60: 67-75, 15 figs.
- CONCI C. & TAMANINI L., 1983d - *Craspedolepta conspersa*, nuova per l'Italia, da *Artemisia vulgaris* - *Studi trent. Sci. nat., Acta biol. Trento*, 60: 77-85, 16 figs.
- CONCI C. & TAMANINI L., 1984a - *Floria (Floria) poggii* n. sp., from Sardinia, host plant *Genista corsica* - *Annali Museo civ. Stor. nat. Genova*, 85: 43-49, 19 figs.
- CONCI C. & TAMANINI L., 1984b - *Trioza (Halotrioza n. subgen.) portulacoides* n. sp., from Ravenna (North Italy), host plant *Halimione portulacoides* - *Boll. Soc. ent. ital.*, Genova, 116 (1-3): 10-16, 20 figs.
- CONCI C. & TAMANINI L., 1984c - *Rhodochlanis salicorniae* Klim., nuovo per l'Italia, *R. hodkinsoni* n. sp., di Puglia, da *Suaeda vera*, e considerazioni sul genere - *Atti Soc. ital. Sci. nat. Museo civ. Stor. nat. Milano*, 125 (1-2): 61-80, 37 figs.
- CONCI C. & TAMANINI L., 1984d - *Trioza (Trioza) rapisardai* n. sp., from Piemonte, host plant *Laserpitium siler* - *Atti Soc. ital. Sci. nat. Museo civ. Stor. nat. Milano*, 125 (3-4): 201-208, 27 figs.
- CONCI C. & TAMANINI L., 1984e - *Trioza (Hippophaetrioza n. subgen.) binotata*, from Alto Adige, new for Italy - *Studi trent. Sci. nat., Acta biol. Trento*, 61, 21 figs. (in print).
- CONCI C. & TAMANINI L., 1984f - *Phylloplecta trisignata* (Löw, 1886), host plant *Rubus* sp., of the complex *Rubi Corylifolii* - *Studi trent. Sci. nat., Acta biol. Trento*, 61, 23 figs. (in print).
- CONCI C., TAMANINI L. & BURCKHARDT D., 1984 (1983) - *Aphorma lichenoides*, new for Italy, and revision of the genus - *Boll. Mus. civ. Stor. nat. Verona*, 10: 445-458, 45 figs. (in print).
- HALPERIN J., HODKINSON I. D., RUSSEL L. M. & BERLINGER M. J., 1982 - A contribution to the knowledge of the Psyllids of Israel - *Israel J. Ent.*, 16: 27-44.
- HAUPT H., 1935 - Blattflöhe, Psyllina - In: *Die Tierwelt Mitteleuropas*, *Verlag Quelle & Meyer*, Leipzig, 4, part. X: 222-252, figs. 423-536.
- HODKINSON I. D., 1983 - Psyllids collected in yellow water trays in Northern Italy - *Entomologist's Gazette*, Faringdon, 34 (4): 279-280.
- HODKINSON I. D. & WHITE I. M., 1979 - Homoptera Psylloidea - Handbooks Ident. Br. Insects, *R. ent. Soc.*, London, 2 (5a): 1-98, 321 figs.

- KLIMASZEWSKI S. M., 1967 - Polnische Arten der Familie Triozidae - *Annales zool.*, Warszawa, 25 (3): 227-315, 126 figs.
- KLIMASZEWSKI S. M., 1973 - The Jumping Plant Lice or Psyllids of the Palaearctic. An annotated Check-List - *Annales zool.*, Warszawa, 30 (7): 155-286.
- KLOET G. S. & HINCKS W. D., 1964 - A Check List of British insects (II Ed.) - Handbooks Ident. Br. Insects, 11 (1): 1-119.
- LAMBERTIE M., 1901 - Contribution à la faune des Hémiptères, Hétéroptères, Cicadines et Psyllides du Sud-Ouest de la France - *Actes Soc. Linn. Bordeaux*, 56: 129-230.
- LAMBERTIE M., 1909 - Idem, (2^e éd.) - *Miscellanea entomol.*, Suppl. 17 (1909), 18 (1910), 103 pp.
- LAUTERER P., 1979 - New and interesting records of Psyllids from Czechoslovakia - *Acta Musei Moraviae*, Brno, 64: 93-102.
- LAUTERER P., 1982 - New data on the occurrence, bionomics and taxonomy of some Czechoslovakian Psylloidea - *Acta Musei Moraviae*, Brno, 67: 133-162, 22 figs.
- LOEW F., 1880 (1879) - Mittheilungen über Psylloden - *Verh. zool.-bot. Ges. Wien*, 29: 549-598, tav. 15.
- LOEW F., 1882 - Katalog der Psylliden des paläarktischen Faunen-Gebietes - *Wiener ent. Zeitung*, Wien, 1 (9): 209-214.
- LOEW F., 1888 - Uebersicht der Psylliden von Oesterreich-Ungarn, ecc. - *Verh. zool.-bot. Ges. Wien*, 38: 5-40, 5 figs.
- LOGINOVA M. M., 1968 - [New data on the fauna and biology of the Caucasian Psylloidea] - *Trudy vsesojuzn. ent. Obshch.*, Moskva-Leningrad, 52: 275-328, 74 figs. (In Russian).
- MASSALONGO C., 1906 - Contribuzione alla conoscenza dei zoocecidii del Nizzardo - *Tip. Bresciani*, Ferrara, 12 pp.
- OSSIANNILSSON F. & JANSSON M., 1981 - Designation of a lectotype and description of *Aphalara rumicicola avicularis* n. ssp. - *Entomologica scandinavica*, Lund, 2: 22-26, 14 figs.
- PIGNATTI S., 1982 - Flora d'Italia, *Edagricole*, Bologna, 3 voll.
- RAMIREZ GOMEZ C., 1956 - Los Psilidos de España - *Boletin Soc. esp. Hist. nat., Secc. biol.*, Madrid, 54: pp. 63-106, groups of figs. 7-12.
- RAMIREZ GOMEZ C., 1960 - *Id.*, 57: 5-87, figs. 13-24, 2 plates, 3 plates col.
- SCHAEFER H. A., 1949 - Beiträge zur Kenntnis der Psylliden der Schweiz - *Mitt. Schwyz. ent. Ges.*, Lausanne, 22 (1): 1-96, 40 figs.
- SCOTT J., 1876 - Monograph of the British species belonging to the Hemiptera-Homoptera, family Psyllidae - *Trans. ent. Soc. London*: 525-569, plates VIII, IX.
- SULC K., 1912 - Monographia generis *Trioza* Foerster. III - *Sitz. kön. böhm. Gesellsch. Wissensch., mat. nat. Kl.*, Prag: 1-63, tavv. XXI-XXXV.
- VONDRAČEK K., 1951 - Jumping Plant-Lice (Psyllinea) in the Collections of the Moravian Museum (Brno). Melichar's collection revised, part II - *Acta Musei Moraviac*, Brno, 36: 174-179.
- TAMANINI L., 1977 - Notizie corologiche e morfologiche su alcuni psillidi poco noti delle Prealpi - *Studi trentini Sci. nat., Acta biol.*, Trento, 54: 103-119, 28 figs.
- TUTHILL L. D., 1943 - The Psyllids of America North of Mexico (Subfamilies Psyllinae and Trioziinae) - *Iowa State College J. Science*, Ames, 17: 443-660, 19 tavv. with 313 figs.
- TUTIN T. G. (Ed.), 1964-1980 - Flora Europaea - *Cambridge University Press*, London.